

PASSIVE STEEL HOMES | OFFICIAL 2026 MASTER SPECIFICATION

MASTER SPECIFICATION & PRICING CATALOG 2026

Light Gauge Steel Framing, Thermal-Bridge-Free Building Physics & Turnkey Cost Guide



OFFICIAL CORPORATE & MANUFACTURER CREDENTIALS

- Manufacturer & General Contractor: YAGMAHAN CONSTRUCTION CONTRACTING CO. LTD.
- Architectural Division: SerVilla & Passive Steel Homes Global Division
- Corporate Registry: Maltepe Tax Office 929 013 7460 | MERSIS: 0929013746000018
- Engineering Codes: EN 1090-2 CE, Passivhaus Institut PHI, Eurocode 3/8, ISO 9001:2015
- Global Logistics: Direct Mega-Trailer Dispatch to 14 European Countries with ATR & EUR.1

SECTION 1: EXECUTIVE SUMMARY & PASSIVE STEEL VISION

30 Years of Engineering Legacy: Passive Steel Homes is an advanced offsite residential construction brand developed by Yagmahan Construction & SerVilla, backed by 30+ years of structural expertise and an archive of 1,281 architectural designs. Unlike traditional reinforced concrete structures, our homes deliver net-zero carbon footprints, up to 90% space heating/cooling energy reduction, and elastic structural resilience against earthquakes up to Mw 9.0.

Passivhaus Philosophy: In response to rising energy costs and severe climate realities, Passivhaus standards have become the gold benchmark of sustainable living. Manufactured on automated CNC roll-forming lines with S350GD+Z275 structural steel, our pre-engineered frames assemble on-site with zero thermal bridging, guaranteeing 100+ years of structural life.

SECTION 2: BUILDING PHYSICS, PERFORMANCE STANDARDS & CODES

Building Element	Material & Layer Composition	Performance Value	International Standard
Structural Frame	S350GD+Z275 (275 g/m² Hot-Dip Galvanized)	350 MPa Yield Strength	EN 10346, Eurocode 3
Exterior Wall U-Value	120 mm Rockwool EIFS + 140 mm In-Stud Rockwool	U = 0.12 – 0.14 W/m²K	Passivhaus Institut (PHI)
Roof U-Value	300 mm Cross-Laid Rockwool + Vapor Barrier	U = 0.10 W/m²K	KfW 40 / Minergie-P
Passive Windows	Schüco/Rehau 82mm, Triple-Glazed Argon Ug=0.5	Uw = 0.75 – 0.80 W/m²K	EN 10077, PHI Certified
Airtightness (n50)	Smart Humidity Barrier + Calibrated Blower Door	n50 ≤ 0.60 1/h (0.45 avg.)	EN 13829 Blower Door
Seismic & Fire	Seismic Ductility Factor R=5.0, A1 Non-combustible	9.0 Mw Seismic / REI 90	Eurocode 8, EN 13501-1

SECTION 3: FOUR DELIVERY PACKAGES & SPECIFICATIONS

PACKAGE P1 €190 – €250 / m ²	Structural Steel Frame Kit S350GD+Z275 high-tensile pre-punched galvanized steel profiles, bolt connections, chemical anchor rods, Eurocode 3/8 statics calculations and 3D step-by-step assembly manual. Ideal for regional builders with their own crews.
PACKAGE P2 €340 – €430 / m ²	Insulated Frame & Exterior Sheathing P1 Frame Kit + Exterior sheathing boards (BoardeX/Cementitious), 140 mm in-stud mineral wool insulation, and high-performance breathable weather-barrier membrane. Factory-guaranteed core thermal insulation.
PACKAGE P3 €590 – €780 / m ²	Certified Passive Outer Shell (Bestseller) P2 Insulated Frame + Continuous 120 mm exterior stone wool EIFS (zero thermal bridging), Standing seam roof envelope, Schüco/Rehau triple-glazed (Ug=0.5) passive certified windows, and airtight sealing tapes. Guaranteed n50 ≤ 0.60 h ⁻¹ airtightness.
PACKAGE P4 €980 – €1.290 / m ²	Comprehensive Structure & Turnkey Core P3 Passive Shell + Interior double-layer drywall partition linings, acoustic floor insulation, pre-installed conduits/plumbing piping, interior doors, and complete supervision. Ready for final flooring, tiles and sanitary fixtures.

SECTION 4: MASTER PRICING & DETAILED COST ANALYTICS

4.1 2026 Factory Base Price Spectrum per m²

Delivery Package	Factory Ex-Works (€/m²)	Turnkey Range (€/m²)*	Erection Time	Target Client
P1: Frame Kit	€190 – €250	€280 – €390 / m²	7 – 10 Days	Contractors with local crews
P2: Insulated Frame	€340 – €430	€650 – €880 / m²	14 – 20 Days	Self-builders & DIY finishers
★ P3: Passive Shell	€590 – €780	€1.150 – €1.490 / m²	25 – 35 Days	Certified Passivhaus seekers
P4: Turnkey Core	€980 – €1.290	€1.850 – €2.650 / m²	45 – 60 Days	Effortless turnkey investors
Full Turnkey Finish	€1.850 – €2.650	All Inclusive	90 – 120 Days	A-to-Z complete living handover

4.2 Turnkey Cost Distribution Percentage Breakdown (%)

Work Breakdown Category	Share of Total (%)	Cost Spectrum (€/m²)	Key Sub-Components Included
Structural Steel Framing	32%	€220 – €280 / m²	S350GD steel, anchor bolts, structural statics, CNC roll-forming
Passive Shell & Insulation	24%	€370 – €480 / m²	120mm exterior rockwool, seam roof, triple-glazed windows
Interior Partitions & Finishes	18%	€280 – €380 / m²	Fire drywalls, parquet/tiles, interior doors, finish paints
MEP, Heat Pump & Solar PV	14%	€220 – €320 / m²	Heat-recovery HRV ventilation, air-water heat pump, solar PV prep
Engineering, Logistics & Supervision	12%	€180 – €250 / m²	BIM detailing, trailer freight, customs, master erector supervisor
TOTAL ESTIMATE	100%	€1.850 – €2.650 / m²	Complete turnkey certified passivhaus standards

4.3 14-Country Structural, Logistics & Customs Matrix

Destination Country	Snow / Wind Statics	Trailer Freight	Customs Regime	Local Code & Subsidies
Germany	1.00x	€3.200	ATR Certificate (0% Duty)	KfW 40 / QNG Subsidies
Switzerland	1.08x	€3.800	EUR.1 Certificate (0% EFTA)	Minergie-P Standard
Austria	1.06x	€3.000	ATR Certificate (0% Duty)	klimaaktiv / OIB-6
Sweden	1.07x	€4.400	ATR + Ro-Ro Ferry	BBR Arctic Standard
Norway	1.08x	€4.600	EUR.1 Certificate (0% EFTA)	TEK17 Heavy Snow Load
Finland	1.07x	€4.500	ATR + Ro-Ro Ferry	RakMK Thermal Envelope
France	1.00x	€3.400	ATR Certificate (0% Duty)	RE2020 Low-Carbon
Netherlands	1.02x	€3.300	ATR Certificate (0% Duty)	BENG Zero Energy
Belgium	1.00x	€3.300	ATR Certificate (0% Duty)	PEB/EPB Compliant
United Kingdom	1.02x	€3.900	UK Customs Clearance	Future Homes Standard 2025
Ireland	1.02x	€4.200	ATR + Ro-Ro Ferry	SEAI Grant & nZEB A2
Spain	0.95x	€3.700	ATR Certificate (0% Duty)	CTE HE0 Solar Protection
Italy	1.05x	€3.100	ATR Certificate (0% Duty)	NTC/EC8 Seismic Zone
Turkey	1.06x	€800	Direct Domestic Dispatch	TBDY 2018 1. Class Seismic

4.4 Four Typical Villa Turnkey Budget Simulations

Villa Type & Area	P1 Frame	P2 Insulated	P3 Passive Shell	P4 Turnkey Core
45 m² Compact Tiny Villa	€9.900 – €12.500	€17.500 – €21.500	€31.000 – €39.000	€51.500 – €67.000
95 m² 1-Storey Bungalow	€20.900 – €26.500	€36.800 – €46.500	€65.500 – €84.000	€108.000 – €141.000
160 m² 2-Storey Family Villa	€36.000 – €45.500	€63.500 – €80.000	€113.000 – €145.000	€186.000 – €243.000
280 m² Prestige Manor	€64.500 – €81.000	€114.000 – €143.000	€202.000 – €260.000	€333.000 – €435.000

4.5 20-Year Energy ROI & Cumulative Savings Analysis

Metric (160 m² Villa)	Conventional Concrete	Passive Steel Home	Net Financial Gain
Annual Space Conditioning	120 kWh / m²yr	15 kWh / m²yr	87.5% Energy Cut
Annual Energy Bill (€0.40/kWh)	€7.680 / yr	€960 / yr	€6,720 / Year Savings
5-Year Cumulative Bill	€38.400	€4.800	€33,600 Saved
10-Year Cumulative Bill	€76.800	€9.600	€67,200 Net Saved
20-YEAR TOTAL NET SAVINGS	€153.600	€19.200	€134,400 NET GAIN!

SECTION 5: ARCHITECTURAL COLLECTION & 25 FEATURED MODELS

PRICING GUIDE

Featured Collection: Selected 25 iconic designs from SerVilla's master collection of 1,281 architectural models. Each card displays the 3D exterior render visualization, architectural layout metrics, and four pre-calculated package price tiers:



CODE: 25-1003 • 99 m² • 1-Storey • 2 Bedrooms

Model 25-1003 — 99 m², 1 storey

P1 Frame Kit: €18.800 – €24.800

P2 Insulated Frame: €33.700 – €42.600

★ **P3 Passive Shell:** €58.400 – €77.200 (Recommended)

P4 Turnkey Core: €97.000 – €127.700



CODE: 25-1004 • 114 m² • 1-Storey • 3 Bedrooms

Model 25-1004 — 114 m², 1 storey

P1 Frame Kit: €21.700 – €28.500

P2 Insulated Frame: €38.800 – €49.000

★ **P3 Passive Shell:** €67.300 – €88.900 (Recommended)

P4 Turnkey Core: €111.700 – €147.100



CODE: 25-1005 • 135 m² • 1-Storey • 3 Bedrooms

Model 25-1005 — 135 m², 1 storey

P1 Frame Kit: €25.600 – €33.800

P2 Insulated Frame: €45.900 – €58.000

★ **P3 Passive Shell:** €79.600 – €105.300 (Recommended)

P4 Turnkey Core: €132.300 – €174.200



CODE: 22-1017 • 187 m² • 1-Storey • 5 Bedrooms

Model 22-1017 — 187 m², 1 storey

P1 Frame Kit: €35.500 – €46.800

P2 Insulated Frame: €63.600 – €80.400

★ P3 Passive Shell: €110.300 – €145.900 (Recommended)

P4 Turnkey Core: €183.300 – €241.200



CODE: 22-1016 • 221 m² • 1-Storey • 5 Bedrooms

Model 22-1016 — 221 m², 1 storey

P1 Frame Kit: €42.000 – €55.200

P2 Insulated Frame: €75.100 – €95.000

★ P3 Passive Shell: €130.400 – €172.400 (Recommended)

P4 Turnkey Core: €216.600 – €285.100



CODE: 69-571 • 285 m² • 1-Storey • 5 Bedrooms

Model 69-571 — 285 m², 1 storey

P1 Frame Kit: €54.200 – €71.200

P2 Insulated Frame: €96.900 – €122.600

★ P3 Passive Shell: €168.200 – €222.300 (Recommended)

P4 Turnkey Core: €279.300 – €367.600



CODE: 22-2042 • 100 m² • 2-Storey • 3 Bedrooms

Model 22-2042 — 100 m², 2 storeys

P1 Frame Kit: €19.600 – €25.800

P2 Insulated Frame: €35.000 – €44.300

★ P3 Passive Shell: €60.800 – €80.300 (Recommended)

P4 Turnkey Core: €100.900 – €132.900



CODE: 22-2009 • 164 m² • 2-Storey • 4 Bedrooms

Model 22-2009 — 164 m², 2 storeys

P1 Frame Kit: €32.100 – €42.200

P2 Insulated Frame: €57.400 – €72.600

★ P3 Passive Shell: €99.700 – €131.800 (Recommended)

P4 Turnkey Core: €165.500 – €217.900



CODE: 25-2008 • 195 m² • 2-Storey • 5 Bedrooms

Model 25-2008 — 195 m², 2 storeys

P1 Frame Kit: €38.200 – €50.200

P2 Insulated Frame: €68.300 – €86.400

★ P3 Passive Shell: €118.500 – €156.700 (Recommended)

P4 Turnkey Core: €196.800 – €259.100



CODE: 25-2006 • 229 m² • 2-Storey • 5 Bedrooms

Model 25-2006 — 229 m², 2 storeys

P1 Frame Kit: €44.800 – €59.000

P2 Insulated Frame: €80.200 – €101.400

★ P3 Passive Shell: €139.200 – €184.000 (Recommended)

P4 Turnkey Core: €231.200 – €304.300



CODE: 25-2002 • 254 m² • 2-Storey • 5 Bedrooms

Model 25-2002 — 254 m², 2 storeys

P1 Frame Kit: €49.700 – €65.400

P2 Insulated Frame: €89.000 – €112.500

★ P3 Passive Shell: €154.400 – €204.100 (Recommended)

P4 Turnkey Core: €256.400 – €337.500



CODE: 25-2001 • 298 m² • 2-Storey • 5 Bedrooms

Model 25-2001 — 298 m², 2 storeys

P1 Frame Kit: €58.300 – €76.700

P2 Insulated Frame: €104.400 – €132.000

★ P3 Passive Shell: €181.100 – €239.400 (Recommended)

P4 Turnkey Core: €300.800 – €396.000



CODE: 25-2007 • 210 m² • 2-Storey • 5 Bedrooms

Model 25-2007 — 210 m², 2 storeys

P1 Frame Kit: €41.100 – €54.100

P2 Insulated Frame: €73.500 – €93.000

★ P3 Passive Shell: €127.600 – €168.700 (Recommended)

P4 Turnkey Core: €212.000 – €279.000



CODE: 25-2005 • 757 m² • 2-Storey • 5 Bedrooms

Model 25-2005 — 757 m², 2 storeys

P1 Frame Kit: €148.100 – €194.900

P2 Insulated Frame: €265.100 – €335.300

★ P3 Passive Shell: €460.000 – €608.200 (Recommended)

P4 Turnkey Core: €764.100 – €1.005.800



CODE: 25-2004 • 406 m² • 2-Storey • 5 Bedrooms

Model 25-2004 — 406 m², 2 storeys

P1 Frame Kit: €79.500 – €104.500

P2 Insulated Frame: €142.200 – €179.800

★ P3 Passive Shell: €246.700 – €326.200 (Recommended)

P4 Turnkey Core: €409.800 – €539.500



CODE: 25-1002 • 132 m² • 1-Storey • 3 Bedrooms

Model 25-1002 — 132 m², 1 storey

P1 Frame Kit: €25.100 – €33.000

P2 Insulated Frame: €44.900 – €56.800

★ P3 Passive Shell: €77.900 – €103.000 (Recommended)

P4 Turnkey Core: €129.400 – €170.300



CODE: 25-2003 • 186 m² • 2-Storey • 5 Bedrooms

Model 25-2003 — 186 m², 2 storeys

P1 Frame Kit: €36.400 – €47.900

P2 Insulated Frame: €65.100 – €82.400

★ P3 Passive Shell: €113.000 – €149.400 (Recommended)

P4 Turnkey Core: €187.700 – €247.100



CODE: 25-1001 • 103 m² • 1-Storey • 3 Bedrooms

Model 25-1001 — 103 m², 1 storey

P1 Frame Kit: €19.600 – €25.800

P2 Insulated Frame: €35.000 – €44.300

★ P3 Passive Shell: €60.800 – €80.300 (Recommended)

P4 Turnkey Core: €100.900 – €132.900



CODE: 22-1020 • 100 m² • 1-Storey • 3 Bedrooms

Model 22-1020 — 100 m², 1 storey

P1 Frame Kit: €19.000 – €25.000

P2 Insulated Frame: €34.000 – €43.000

★ P3 Passive Shell: €59.000 – €78.000 (Recommended)

P4 Turnkey Core: €98.000 – €129.000



CODE: 22-1019 • 101 m² • 1-Storey • 3 Bedrooms

Model 22-1019 — 101 m², 1 storey

P1 Frame Kit: €19.200 – €25.200

P2 Insulated Frame: €34.300 – €43.400

★ P3 Passive Shell: €59.600 – €78.800 (Recommended)

P4 Turnkey Core: €99.000 – €130.300



CODE: 22-1018 • 109 m² • 1-Storey • 3 Bedrooms

Model 22-1018 — 109 m², 1 storey

P1 Frame Kit: €20.700 – €27.200

P2 Insulated Frame: €37.100 – €46.900

★ P3 Passive Shell: €64.300 – €85.000 (Recommended)

P4 Turnkey Core: €106.800 – €140.600



CODE: 22-2045 • 401 m² • 2-Storey • 5 Bedrooms

Model 22-2045 — 401 m², 2 storeys

P1 Frame Kit: €78.500 – €103.300

P2 Insulated Frame: €140.400 – €177.600

★ P3 Passive Shell: €243.700 – €322.200 (Recommended)

P4 Turnkey Core: €404.800 – €532.800



CODE: 22-2044 • 206 m² • 2-Storey • 5 Bedrooms

Model 22-2044 — 206 m², 2 storeys

P1 Frame Kit: €40.300 – €53.000

P2 Insulated Frame: €72.100 – €91.200

★ P3 Passive Shell: €125.200 – €165.500 (Recommended)

P4 Turnkey Core: €207.900 – €273.700



CODE: 22-2043 • 242 m² • 2-Storey • 5 Bedrooms

Model 22-2043 — 242 m², 2 storeys

P1 Frame Kit: €47.400 – €62.300

P2 Insulated Frame: €84.700 – €107.200

★ P3 Passive Shell: €147.100 – €194.400 (Recommended)

P4 Turnkey Core: €244.300 – €321.500



CODE: 22-2041 • 218 m² • 2-Storey • 5 Bedrooms

Model 22-2041 — 218 m², 2 storeys

P1 Frame Kit: €42.700 – €56.100

P2 Insulated Frame: €76.300 – €96.600

★ P3 Passive Shell: €132.500 – €175.100 (Recommended)

P4 Turnkey Core: €220.000 – €289.700

SECTION 6: 7-STAGE CONSTRUCTION WORKFLOW & FAQ

Stage 1: 1. Requirement Analysis & Architectural Selection (Week 1): Customized to plot topography, sun orientation and planning regulations.

Stage 2: 2. Eurocode 3/8 Statics & 3D BIM Modeling (Weeks 1–2): Certified calculations for regional wind, snow, and seismic loads.

Stage 3: 3. Automated CNC Roll-Form Production (Weeks 2–3): S350GD structural profiles manufactured with ± 0.5 mm precision and barcoded.

Stage 4: 4. International Logistics & Customs Clearance (3–7 Days): Direct dispatch via 90 m³ mega-trailers with ATR or EUR.1 0% tariff certificate.

Stage 5: 5. Frame Erection & Chemical Anchoring (7–15 Days): Assembled on foundation slab by local crews or SerVilla master erector supervisor.

Stage 6: 6. Thermal Envelope, Seam Roof & Triple Glazing (15–20 Days): 120 mm continuous stone wool EIFS, standing seam and certified windows.

Stage 7: 7. Calibrated Blower Door Test & Final Handover (Day 1): Verification of airtightness ($n_{50} \leq 0.60 \text{ h}^{-1}$) and energy performance certificate.

FREQUENTLY ASKED QUESTIONS (FAQ)

Customs & VAT: All prices are net factory export quotes. Dispatches to the EU benefit from 0% customs duty via ATR certificate (and EUR.1 for Switzerland/EFTA). Only local import VAT is payable in the destination country.

Durability & Corrosion: Frames are engineered from S350GD hot-dip galvanized steel with 275 g/m² zinc coating. Protected inside airtight thermal envelope with zero moisture condensation. Design life exceeds 100+ years.

Assembly: All steel members feature laser-etched part numbers matching the 3D step-by-step BIM manual. Assembled entirely with mechanical bolts—no welding required on site.

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